

1. A slit valve catheter comprising:
 - a catheter tube comprising at least one lumen;
 - a closed distal tip at the distal end of the catheter tube;
 - at least one normally closed slit valve comprising a slit which normally prohibits fluid flow but which opens when indwelling under a predetermined fluid pressure differential to accommodate fluid flow through the open slit.
2. A slit valve catheter according to claim 1 wherein the catheter tube comprises a plurality of internal lumens with a tip slit valve aligned with each lumen.
3. A slit valve catheter according to claim 1 wherein the tip comprises a concentric generally cone-shaped wall.
4. A slit valve catheter according to claim 1 wherein the tip comprises an asymmetric eccentric generally cone-shaped wall.
5. A slit valve catheter according to claim 1 wherein the tip comprises a concentric generally cone-shaped wall comprising at least one flat area in which the at least one slit valve is disposed.
6. A slit valve catheter according to claim 5 wherein the at least one flat area comprises at least two flat areas, each with at least one slit valve there disposed.

7. A slit valve catheter according to claim 1 wherein the tip comprises a blunt distal wall in which at least one slit valve is disposed.

8. A slit valve catheter according to claim 7 wherein part of the tip convergently tapers between the catheter tube and the blunt distal wall.

9. A slit valve catheter according to claim 1 wherein the tip comprises a flat beveled wall in which at least one slit valve is disposed.

10. A slit valve catheter according to claim 1 wherein the tip comprises a duckbill configuration.

11. A slit valve catheter according to claim 1 wherein at least one slit valve comprises a two way valve comprising lips adjacent to the slit which when indwelling selectively flex inwardly and outwardly depending on the pressure differential to aspirate and infuse.

12. A slit valve catheter according to claim 1 wherein the catheter tube is formed of a material selected from the group consisting of urethane, silicone rubber and natural and synthetic elastomers.

13. A slit valve catheter according to claim 1 wherein the tip is formed substantially of a material selected from the group consisting of urethane, silicone rubber and natural and synthetic elastomers.

14. A slit valve catheter according to claim 1 wherein the slit valve is formed of a material selected from the group consisting of urethane, silicone rubber and natural or synthetic elastomeric material treated to enhance flexure from the normally closed to an open position.

15. A slit valve catheter according to claim 1 wherein the catheter tube and the tip are formed as one piece.

16. A slit valve catheter according to claim 1 wherein the catheter tube and tip are first formed as two pieces and then integrated.

17. A slit valve catheter according to claim 16 wherein the catheter tube and tip are integrated by at least one overlapping sleeve.

18. A combination comprising a normally closed distal catheter tip comprising a tip wall and at least one normally closed but selectively openable slit valve disposed in the tip wall.

19. A combination according to claim 18 wherein the tip configuration is either symmetric or asymmetric and selected from the group consisting of pyramid, rounded, parabolic and cone shapes.

20. A combination according to claim 18 wherein the tip configuration is either symmetric or asymmetric and selected from the group consisting of dome, transversely blunt, diagonally disposed blunt, hemispheric and balloon-shaped.

21. A combination according to claim 18 wherein the at least one slit valve is selected from the group consisting of two or more one-way valves and one or more two-way valves.

22. A combination according to claim 18 wherein the slit of the slit valve varies in thickness along its length.

23. A combination according to claim 18 wherein the slit valve is internally structurally reinforced.

24. A combination according to claim 18 wherein the catheter is multi-lumen and the tip distally terminates in longitudinally spaced staggered end elements, each having at least one slit valve aligned with one lumen.

25. A combination according to claim 18 wherein the slit of the slit valve traverses around an apex of the tip.

26. A combination according to claim 18 wherein the tip comprises a beveled blunt end with the slit valve disposed therein such that the length of the slit is greater than the diameter of the catheter.

27. A combination according to claim 18 wherein the slit valve comprises a two-way valve which flexes to create a large infusion flow path and a small aspiration flow path.

28. A method of using a normally closed catheter tube comprising a distal normally closed tip having at least one normally closed slit valve comprising the acts of:

placing the tip indwelling in a patient;

creating a fluid pressure differential across the normally closed slit valve such that the slit valve flexes to an open position to accommodate fluid flow through the slit valve between an interior and an exterior of the indwelling tip.

29. A method of making a normally closed catheter comprising the acts of:

forming a catheter tube comprising at least one lumen and a distal end;

integrally forming a tip at the distal end of the catheter tube;

causing at least one slit valve to be formed in the tip.